

Fun Rational Expressions :-)

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Simplify each expression.

1) $\frac{9p^2}{6p}$

2) $\frac{8n^4}{9n} \div \frac{4n^3}{6}$

3) $\frac{(m+10)^2}{7(m+10)} \cdot \frac{m-2}{m+10}$

4) $\frac{x^2 - 10x + 16}{x^2 - 6x + 8}$

5) $\frac{10x^2}{5x^2} \cdot \frac{5x}{2}$

6) $\frac{9b^2 + 63b}{8} \div \frac{9b}{4}$

7) $\frac{30n^2 + 96n + 72}{12n - 24}$

8) $\frac{2(3-x)}{2(x-3)} \div \frac{x-2}{25}$

9) $\frac{r^2 - r - 2}{r+1} \cdot \frac{3r^2 - 24r}{3r^2 - 6r}$

10) $\frac{2v^2 + 6v}{2v} \div \frac{6v + 36}{6v - 60}$

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Simplify each expression.

1) $\frac{9p^2}{6p}$

$$\frac{3p}{2}$$

2) $\frac{8n^4}{9n} \div \frac{4n^3}{6}$

$$\frac{4}{3}$$

3) $\frac{(m+10)^2}{7(m+10)} \cdot \frac{m-2}{m+10}$

$$\frac{m-2}{7}$$

4) $\frac{x^2 - 10x + 16}{x^2 - 6x + 8}$

$$\frac{x-8}{x-4}$$

5) $\frac{10x^2}{5x^2} \cdot \frac{5x}{2}$

$$5x$$

6) $\frac{9b^2 + 63b}{8} \div \frac{9b}{4}$

$$\frac{b+7}{2}$$

7) $\frac{30n^2 + 96n + 72}{12n - 24}$

$$\frac{(n+2)(5n+6)}{2(n-2)}$$

8) $\frac{2(3-x)}{2(x-3)} \div \frac{x-2}{25} - \frac{25}{x-2}$

9) $\frac{r^2 - r - 2}{r+1} \cdot \frac{3r^2 - 24r}{3r^2 - 6r}$

$$r-8$$

10) $\frac{2v^2 + 6v}{2v} \div \frac{6v + 36}{6v - 60}$

$$\frac{(v-10)(v+3)}{v+6}$$